

CORRES. CONTROL
OUTGOING LTR NO.

DOE ORDER #

94 RF 03122

EG&G ROCKY FLATS

EG&G ROCKY FLATS, INC.

ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000



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March 18, 1994

Richard J. Schassburger

Acting Director

Environmental Restoration

DOE, RFO

QUARTERLY REPORT FOR BIOREMEDIATION TREATABILITY STUDY TASK - NMH-040-94

This report summarizes the progress made on the Bioremediation task (Work Package Number: 12192; Activity Number: 11200) during the second quarter of Fiscal Year 1994. Work under this activity to be accomplished in Fiscal Year 1994 will focus on biodegradation of chlorinated solvents from subsurface soils. The work will address the treatability study requirements associated with the potential excavation and treatment of soil from Operable Unit No. 2 (OU 2), Individual Hazardous Substance Site (IHSS) 110, contaminated with organics and potentially Non-Aqueous Phase Liquids (NAPLs). A baseline schedule is attached.

The activities that have taken place during the second quarter include the following:

- Completion and transmittal to DOE/RFO of a bioremediation literature overview and contaminant distribution by Operable Units. No comments were requested on these items.
- Completion of the first draft of the Bioremediation Treatability Study Workplan.
- Transmittal of the Bioremediation Treatability Study Workplan to DOE/RFO. Comments from DOE/RFO were requested by March 7, 1994 and were received on March 14, 1994. This has caused one week of schedule slippage for submittal of the Bioremediation Workplan to the Environmental Protection Agency (EPA) and Colorado Department of Health (CDH).
- Completion of a laboratory needs assessment.
- Completion of purchase requisitions to supply the laboratory with equipment.
- Completion of a Job Safety Analysis that addressed the Health and Safety requirements of research performed in the 881 Laboratory.
- Completion of a Quality Assurance Addendum for the bioremediation research as an addendum to the EG&G Environmental Restoration Quality Assurance Project Plan.
- Completion of a Waste Guidance Plan that addressed the waste requirements for the bioremediation research.
- Assessment of the training courses required to perform research using the specific chemicals and procedures of the bioremediation research.

Activities scheduled to be completed in the third quarter include performing Phase I and Phase II research.

Phase I activities to be performed in the third quarter include:

- Analytical Methods Development-ensure all laboratory practices are per Standard Operating Procedures and Standard Methods; ensure reliability of analytical equipment; obtain soil samples and perform pre-characterization for biological activity.

CLASSIFICATION:

UNCLASSIFIED

CONFIDENTIAL

SECRET

DATE

IN REPLY TO RFP CC NO:

ACTION ITEM STATUS

☐ PARTIAL/OPEN

☐ CLOSED

LTR APPROVALS

ORIG & TYPIST INITIALS

ADMIN RECORD

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- Abiotic Study-an analytical procedure carried out to evaluate the degradation of chlorinated solvents due to chemical and/or physical (and not biological) processes.

Phase II activities to be performed in the third quarter include:

- Enrichment Culturing-creation of biological cultures which are enriched to encourage specific anaerobic/aerobic conditions for degradation of chlorinated solvents; may require additional laboratory supplies.

For further information regarding the Bioremediation Treatability Study, please contact Robin E. Madel of Environmental Engineering & Technology (EE&T) at 966-6972.



N. M. Hutchins
Environmental Engineering and Technology
EG&G, Inc.

REM:mp

Orig. and 1 cc - Richard J. Schassburger

Attachment:
As Stated

cc:

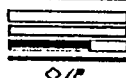
S. R. Grace	-	DOE/RFO
A. H. Pauole	-	" "
M. N. Silverman	-	" "
M. J. Harris	-	NFT, Inc.

ACTIVITY ID	ACTIVITY DESCRIPTION	TOTL FLT	REM DUR	EARLY START	EARLY FINISH	1993 1994 1995											
						S	O	N	D	J	F	M	A	M	J	J	A
1219205005	EVALUATE SUPPLIES		0	4MAR94A	8MAR94A												
1219205010	COMPLETE PURCHASE REQS		0	9MAR94A	11MAR94A												
1219205015	DELIVER EQUIPMENT	5	30	19APR94	31MAY94												
1219205016	DELIVER EQUIPMENT STATUS	186	0	10MAY94													
1219205020	PHASE II ENRICHMENT CULTURE	-1	90	9JUN94	14OCT94												
1219205021	PHASE II ENRICHMENT CULTURE STATUS REPORT	145	0	8JUL94													
1219205022	PHASE II ENRICHMENT CULTURE STATUS REPORT	125	0	5AUG94													
1219205023	PHASE II ENRICHMENT CULTURE STATUS REPORT	105	0	2SEP94													
1219205024	PHASE II ENRICHMENT CULTURE STATUS REPORT	85	0	30CT94													
1219205040	PHASE II TRANSFORMATION STUDIES	-1	70	8JUL94	14OCT94												
1219205041	PHASE II TRANSFORMATION STATUS	125	0	5AUG94													
1219205042	PHASE II TRANSFORMATION STATUS	105	0	2SEP94													
1219205043	PHASE II TRANSFORMATION STATUS	35	0	30CT94													
1219205100	SCOPE PHASE III BENCH SCALE TESTING	35	50	30CT94	13DEC94												
1219205101	SCOPE PHASE III BENCH SCALE TESTING STATUS CIK	65	0	31OCT94													
1219205102	SCOPE PHASE III BENCH SCALE TESTING STATUS CIK	45	0	30NOV94													
1219205110	BEGIN PHASE III BENCH SCALE TESTING	35	0		13DEC94												

Activity Classification: SUMMARY

RAHWOCK ACTIVITY

Target Date 20FEB94
Plot Date 14MAR94
Data Date 14MAR94
Project Start 10CT93
Project Finish 08DEC95



Activity Bar/Early Dates
Critical Activity
Progress Bar
Target Dates
Milestone/Flag Activity

DEF2

EG&G ROCKY FLATS
SITEWIDE TREATABILITY STUDIES
BIOREMEDIATION TS

Sheet 4 of 4

WORK PACKAGE # 12192

Date	Revision	Checked	Approved

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ACTIVITY ID	ACTIVITY DESCRIPTION	TOTL FLT	REM DUR	EARLY START	EARLY FINISH	1993												1994												1995		
						S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M								
1219203000	BIOREMEDIATION TS	-1	226	10CT93A	8FEB95																											
1219203002	LITERATURE REVIEW - DRAFT		0	10CT93A	15OCT93A																											
1219203003	LITERATURE REVIEW - FINAL		0	15OCT93A	29OCT93A																											
1219203004	CONTAMINANT DISTRIBUTION LIST - DRAFT		0	10CT93A	15OCT93A																											
1219203005	CONTAMINANT DISTRIBUTION LIST - FINAL		0	15OCT93A	27OCT93A																											
1219203006	BIOREMEDIATION METHOD SELECTION - INITIAL MTG		0	4OCT93A	4OCT93A																											
1219203007	BIOREMEDIATION METHOD SELECTION - DRAFT		0	4OCT93A	23DEC93A																											
1219203008	BIOREMEDIATION METHOD SELECTION - FINAL		0	3JAN94A	14JAN94A																											
1219203009	COST EVALUATION - DRAFT		0	3JAN94A	7JAN94A																											
1219203010	COST EVALUATION - FINAL		0	10JAN94A	14JAN94A																											
1219203012	EG&G PREPARE DRAFT WORK PLAN		0	10CT93A	24FEB94A																											
1219203013	EG&G/DOE WORKPLAN REVIEW	-1	1	28FEB94A	14MAR94																											
1219203014	REVISE WORKPLAN (DOE/EG&G COMMENTS)	-1	5	15MAR94	21MAR94																											
1219203015	EPA/CDH WORKPLAN REVIEW	-1	10	22MAR94	4APR94																											
1219203016	REVISE WORKPLAN (EPA/CDH COMMENTS)	-1	5	5APR94	12APR94																											
1219203017	WORKPLAN TO PROJECT MANAGEMENT FILES	-1	0		12APR94																											
1219203020	PREPARE FIRST QUARTER REPORT		0	16DEC93A	22DEC93A																											
1219203021	DRAFT FIRST QUARTER REPORT TO DOE FOR REVIEW		0		22DEC93A																											
1219203022	REVISE FIRST QUARTER REPORT		0	23DEC93A	11JAN94A																											
1219203023	FIRST QUARTER REPORT		0		12JAN94A																											

Activity Classification Summary
☒ NARROW ACTIVITY

Activity Bar/Early Dates
Critical Activity
Progress Bar
Target Dates
Milestone/Flag Activity

Target Date 28FEB94
Plot Date 14MAR94
Data Date 14MAR94
Project Start 10CT93
Project Finish 08FEB95

EG&G ROCKY FLATS
SITEWIDE TREATABILITY STUDIES
BIOREMEDIATION TS

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WORK PACKAGE # 12192

Date	Revision	Checked	Approved

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ACTIVITY ID	ACTIVITY DESCRIPTION	TOTAL FLT	REM DUR	EARLY START	EARLY FINISH	Gantt Chart Timeline																	
						1993			1994						1995								
						S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
1219203029	PREPARE SECOND QUARTER REPORT	211	1	3MAR94A	14MAR94																		
1219203030	DRAFT SECOND QUARTER REPORT TO DOE FOR REVIEW	225	0		14MAR94																		
1219203035	REVISE SECOND QUARTER REPORT	211	13	15MAR94	31MAR94																		
1219203040	SECOND QUARTER REPORT	211	0		1APR94																		
1219203041	SCHEDULE RESERVE	-1	20	13APR94	10MAY94																		
1219203042	ANALYTICAL METHODS DEVELOPMENT	6	30	1APR94	13MAY94																		
1219203043	PHASE I STATUS REPORT I	197	0	25APR94																			
1219203046	ABIOTIC STUDY	-1	64	11MAY94	10AUG94																		
1219203047	ABIOTIC STATUS REPORT I	165	0	9JUN94																			
1219203048	ABIOTIC STATUS REPORT I	145	0	8JUL94																			
1219203049	PREPARE THIRD QUARTER REPORT	149	5	6JUN94	10JUN94																		
1219203050	DRAFT THIRD QUARTER REPORT TO DOE FOR REVIEW	149	0		13JUN94																		
1219203055	REVISE THIRD QUARTER REPORT	149	12	14JUN94	29JUN94																		
1219203058	THIRD QUARTER REPORT	149	0		30JUN94																		
1219203060	PREPARE PHASE I & II DRAFT REPORT	-1	50	19AUG94	28OCT94																		
1219203061	PREPARE PHASE I & II DRAFT REPORT STATUS CHK	95	0	19SEP94																			
1219203062	PREPARE PHASE I & II DRAFT REPORT STATUS CHK	75	0	17OCT94																			
1219203064	EG&G/DOE REVIEW PHASE I & II DRAFT REPORT	-1	15	31OCT94	18NOV94																		
1219203065	REVISE PHASE I & II DRAFT REPORT (EG&G/DOE COM)	-1	15	21NOV94	13DEC94																		
1219203066	SUBMIT PHASE I & II DRAFT REPORT TO EPA/CDH	-1	0		13DEC94																		

Activity Classification: SUMMARY
RAMPDOWN ACTIVITY

Target Date 20FEB94
Plot Date 14MAR94
Data Date 14MAR94
Project Start 10C193
Project Finish 0FEB95

Activity Bar/Early Dates
Critical Activity
Progress Bar
Target Dates
Milestones/Flag Activity

DEF2

EG&G ROCKY FLATS
SITEWIDE TREATABILITY STUDIES
BIOREMEDIATION TS

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